DOCUMENT RESUME

ED 423 275 TM 029 080

AUTHOR Deeter, Thomas; Prine, Don
TITLE Standardized Tests: Summary of Results 1997-1998. Focus on Standardized Testing.
INSTITUTION Des Moines Public Schools, IA. Dept. for School Improvement and Employee Relations.
PUB DATE 1998-06-00
NOTE 18p.
PUB TYPE Numerical/Quantitative Data (110) -- Reports - Descriptive (141)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; *Achievement Tests; Educational Trends; Elementary Secondary Education; *Norm Referenced Tests; School Districts; Scores; Special Education; *Standardized Tests; Tables (Data); *Test Results; Test Use; Testing Programs
IDENTIFIERS *Des Moines Public Schools IA; *Iowa Tests of Basic Skills; PLAN Tests

ABSTRACT

As part of its academic testing program, the Des Moines Public Schools administer standardized, norm-referenced achievement tests. The Iowa Tests of Basic Skills (ITBS) is a norm-referenced standardized test battery that is administered to students in grades 3, 4, 6, and 7. In the 1997-98 school year, over 415 (approximately 5%) of the students who took the ITBS were being served by a special education program. During the year, the American College Testing Program's PLAN assessment was administered in the fall to Grade 10 students. Other aspects of the district assessment plan, not reported in this document, include criterion-referenced, objectives-based tests, a writing test, college entrance examinations, and advanced placement tests. This analysis focuses on student norms rather than school norms. Analysis of the results of the standardized norm-referenced achievement tests indicates that Des Moines students are achieving above most other students nationwide. While there is room for improvement, students at most schools are scoring at a higher percentile rank on the ITBS when compared to similar groups in prior years. Even with the inclusion of the special education students, most schools continue to do very well. Students continue to achieve at relatively higher levels in mathematics than in reading or language, a finding that supports the district's new mathematics curriculum. Results from the ITBS and the PLAN assessments, in conjunction with other assessment results, should provide a foundation of information that is necessary to make informed decisions about the instruction and achievement of district students. Seven appendixes contain definitions of terms used in the report and tables of historical ITBS results and trends. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

98-191

ED 423 275

Standardized Tests
Summary of Results
1997-1998

Des Moines Independent Community School District
Department for School Improvement & Employee Relations
1800 Grand Avenue
Des Moines, Iowa 50309

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Thomas Deeter
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

June, 1998

Dr. Thomas Deeter
Program Evaluator, Testing & Research

Dr. Don Prine
Director, School Improvement
& Employee Relations

TM029080

The Des Moines Independent Community School District
Standardized Test Results
June, 1998

The Des Moines Public Schools continue to focus improvement efforts on the academic growth and development of our diverse urban student body. The primary goal of the academic testing program is to provide information that the district and individual schools can use to develop and implement strategies to improve teaching and increase learning. As part of the academic testing program, the district administers standardized, norm-referenced achievement tests.

The Iowa Tests of Basic Skills (ITBS) is a norm-referenced, standardized test battery developed by the Iowa Testing Programs in Iowa City, Iowa. It is administered in February to district students in Grades 3, 4, 6, and 7.

A major change in the ITBS administration procedures for the 1997-98 school year involved testing special education students. In the past, special education students were not included in ITBS testing unless requested by parents. To comply with new legislation, procedures were changed such that all special education students now participate in the ITBS assessment, unless parents request an exemption from testing. As such, the 1997-98 school year was the first administration of the ITBS in which the district administered the ITBS to a relatively large number of special education students. This year, over 415 (approximately 5%) students who took the ITBS were being served by a special education instructional program.

During the 1997-98 school year, ACT's PLAN assessment was administered in the fall to Grade 10 students. A replacement for the ITED, this assessment provided students with information on achievement in English, Mathematics, Reading, and Science Reasoning. In addition, it assessed students' study skills and career interests.

The purpose of this document is to provide information regarding student achievement on the district's standardized, norm-referenced assessments for the 1997-98 school year. It is important to keep in mind that the district's standardized testing program is only part of the district's academic assessment of students. Other aspects of the district-wide assessment program include criterion-referenced, objectives-based tests (subject matter tests), the district's composition assessment, college entrance examinations (ACT, SAT) and advanced placement tests.

The primary use of norm-referenced, standardized assessments is to provide general information regarding how our district as a whole compares with other urban districts with similar characteristics across the state and nation. National norms are used by our district as the standard of comparison for ITBS, since the district's urban demographic characteristics are more reflective of a national standard than a composite state standard.

It is important that our district not focus on our own curriculum objectives to the extent that we lose sight of what is being taught in other districts across the country. Standardized assessments help to supplement an appropriate perspective by selecting items that test a broad range of objectives from each subject area. These standardized tests are not intended or designed to perfectly match any district's curriculum, however, they are fair measures of student achievement in most areas.

Critical to an accurate interpretation of standardized test scores is an understanding of the types of scores reported, their derivation, and how they should be used and interpreted. Traditionally, school norms have been used in reporting to the public. However, many readers interpret school norms as the achievement of the average student in a school, which is inaccurate.

This report focuses on student norms rather than school norms, since our focus as a district is on the achievement of our students relative to our schools. When ITBS data are disaggregated for district or school improvement purposes, such as including results in school information bases, student norm data are used. And, as the District Improvement Plan guides our planning process toward improved teaching and learning, using indices that better reflect the achievement of students (i.e., student norms), rather than schools, is an appropriate step to take.

Percentile scores (or ranks) are useful in that they are good indicators of status, or position relative to a group. As such, they are useful for determining strengths and weaknesses relative to a comparison group. For example, a teacher might take a class of 100 students out on a track, have them begin running or walking, and then have them stop when the whistle is blown. At this point, it is relatively easy to determine the position of each student relative to the other students in the class. Depending on when the teacher stops the class, a student may be running or walking, and the position of that student relative to the rest of the class will reflect that student's status at that moment in time.

Student achievement patterns are neither linear nor constant. They tend to consist of a series of improvements (learning) and plateaus (maintenance). Both vary widely, and depending on when the student is assessed, may be improving or at a plateau. As such, that student's achievement status relative to the comparison group will be able to be determined. This way, percentile scores can serve the function of sorting and selecting.

Student percentile scores are used to examine the achievement of the average student in a class, grade, school, or district, with respect to a reference group. The student norm distribution is derived from the pool of student scores, such that each student's score is included in the pool of scores from which the normal curve is derived. This results in the classic "bell-shaped" curve. When examining trends, student norms tend to be more stable than school norms. Interpreted at a school level, the student norm reflects the achievement of the average student in the school and grade, an interpretation that is not able to be made with school norms. When a parent receives test results from the Iowa Testing Programs, and wants to compare a student's achievement with that of other students in the school, the appropriate norm to use is the student norm.

School percentile scores are used to compare schools or districts within a reference group. The school norm distribution, or curve, is derived from the pool of school average scores (see Figure 1). In other words, each school contributes one score, the school's average, to the pool of scores. This results in a curve that has less variability (a narrower range) and is more peaked when compared to a normal distribution. Because of the narrower range, the difference of a few raw score points translates into large differences in percentile rank. The farther scores are from the mean (50th percentile), the more school achievement may look inflated or deflated. Also, when examining trends, school norms tend to yield greater fluctuations (larger gains or losses) over time.

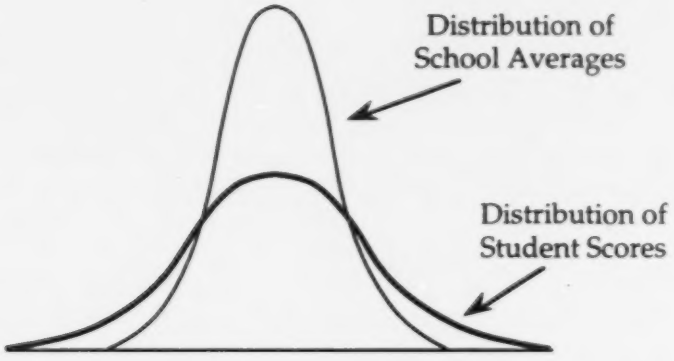

Figure 1. Comparison of School and Student Norm Distributions

The ITBS tests are designed so that each successive level of the test contains items from the upper half (approximately) of the previous level material. Considering the basic design of the ITBS (or any norm-referenced test), students performing at the 50th percentile are at the expected test and grade level average. For example, fourth grade students scoring at the 50th percentile in February also have a grade equivalent of approximately 4.5.

Elementary School ITBS

Grade 3. The district's national Core Total score on the 3rd grade ITBS was the 50th percentile. Of the district's 39 elementary centers, the average student at 17 (44%) schools scored above the 50th percentile. The average student at one of these elementary centers scored above the 80th percentile, and the average student at six others equaled or surpassed the 60th percentile point. The average student at 22 (56%) of the elementary centers scored below the 50th percentile, with the average student at nine schools scoring below the 40th percentile (Appendix B).

Grade 4. The district's national Core Total score on the 4th grade ITBS was the 56th percentile. Of the district's 39 elementary centers, the average student at 24 (62%) schools scored above the 50th percentile. The average student at one of these elementary centers scored above the 80th percentile, and the average student at eleven others equaled or surpassed the 60th percentile point. The average student at 15 (38%) of the elementary centers scored below the 50th percentile, with the average student at four schools scoring below the 40th percentile (Appendix B).

Elementary School Growth

Grade 3 (1996-97) to Grade 4 (1997-98). For the similar group of students, tested in the third grade in 1997 and in the fourth grade in 1998, the district's national Core Total score on the ITBS increased from the 52nd to the 56th percentile. It should be noted that the group of fourth grade students in 1997-98 are different from the group of third grade students in 1996-97 to the extent that students move into or out of the district.

Of the district's 39 elementary centers, the average student at 28 (72%) schools recorded an increase in Core Total scores varying from 1 to 17 percentile points. The average student at fifteen of these elementary centers improved by at least 5 percentile points. Scores for one elementary center's average student remained unchanged, and above the 50th percentile. Scores for the average student at ten elementary centers (26%) dropped between 1 and 23 percentile points (Appendix C).

An analysis of the ITBS subtests for the 1997-98 fourth graders compared to their 1996-97 third grade scores (Table 1) indicates improvement on Reading Total, Language Total, and Math Total scores, and no change in Sources of Information Total scores.

Table 1. Elementary School ITBS Subtest Score Comparisons:
Group Trend Percentile Ranks
National Student Norms

	Grade 3 1996-97	Grade 4 1997-98
Vocabulary	47	48
Reading Comprehension	55	57
Reading Total	50	54
Spelling	48	51
Capitalization	51	62
Punctuation	58	64
Usage	53	59
Language Total	52	58
Math Concepts	53	60
Math Problem Solving	61	62
Math Total	58	62
Core Total	52	56
Maps & Diagrams	60	61
Reference Materials	55	57
Sources of Information Total	58	58

The Iowa Testing Programs recommends that a more appropriate way (than using percentile ranks) to estimate a student's developmental level, or to gauge year-to-year growth, is to examine grade equivalent scores. The grade equivalent is a (decimal) number that describes a student's location on an achievement continuum. It is relatively easy to understand since it is anchored to the year and month of each grade level in school. For example, a student who takes the ITBS at midyear of seventh grade would be expected to achieve a grade level of 7.5 (seventh year, fifth month).

One common misunderstanding about grade equivalent scores is that they should be used for placement decisions. A third grade student who achieves a grade level of 5.4 in mathematics does not mean that the student should be accelerated in mathematics. In fact, the score provides no information about how that student would normally perform on fifth grade mathematics work. What it does mean, is that the student scored as well as an average fifth grade student in the fourth month of school who took the same test as the third grade student. Grade equivalent scores much higher than a student's actual grade level are simply a sign of exceptional performance.

Appendix D contains the Grade 3 to Grade 4 group trends using grade equivalent scores. The expected grade equivalents for third and fourth grade are 3.5 and 4.5, respectively. Any change score that is equal to 1.0 reflects normal (expected) student achievement growth. Any change score that is greater than 1.0 reflects accelerated growth, and any change score less than 1.0 reflects student achievement growth that is less than that which would normally be expected.

As we examine grade equivalent scores, it is particularly interesting to note schools that have students performing at a high level in the first year, and continue to achieve beyond the expected one year's growth. It is also interesting to note the schools with students achieving below expectations in the first year who are closing the gap in the second year.

Of the district's 39 elementary centers, the average student at 27 (69%) achieved a level of growth that is greater than would normally be expected. Students at four schools progressed as expected. Students at eight schools achieved at a rate that is less than would normally be expected. However, students at four of those eight schools averaged a grade equivalent level that is at or above the expected level of 4.5. Therefore, students at four schools did not experience achievement growth at the expected level, and achieved at a lower than expected level (less than 4.5 for Grade 4).

Middle School ITBS

Grade 6. The district's national Core Total score on the 6th grade ITBS was the 54th percentile. Of the district's ten middle schools, the average student at six (60%) schools scored at or above the 50th percentile, and the average student at four schools surpassed the 60th percentile point. The average student at four (40%) of the middle schools scored below the 50th percentile; no school's average student score fell below the 40th percentile (Appendix E).

Grade 7. The district's national Core Total score on the 7th grade ITBS was the 55th percentile. Of the district's ten middle schools, the average student at five (50%) schools scored at or above the 50th percentile, with the average student at four schools surpassing the 60th percentile point. The average student at five (50%) of the middle schools scored below the 50th percentile; no school's average student score fell below the 40th percentile (Appendix E).

Middle School Growth

Grade 6 (1996-97) to Grade 7 (1997-98). For the similar group of students, tested in the sixth grade in 1997 and in the seventh grade in 1998, the district's national Core Total score on the ITBS increased from the 54th to the 55th percentile.

The average student at five middle schools (50%) recorded increases in Core Total scores varying from 2 to 3 percentile points. Scores for two schools' average students remained unchanged, with one above and one below the 50th percentile. The average student score at three middle schools decreased in Core Total scores from 1 to 4 percentile points (Appendix F).

An analysis of the ITBS subtests for the 1997-98 seventh graders compared to their 1996-97 sixth grade scores (Table 2) indicates improvement on Language Total, Math Total, and Science scores, and decreases in Reading Total and Sources of Information Total scores.

Table 2. Middle School ITBS Subtest Score Comparisons:
Group Trend Percentile Ranks
National Student Norms

	Grade 6 1997-98	Grade 7 1997-98
Vocabulary	48	48
Reading Comprehension	54	54
Reading Total	53	52
Spelling	50	53
Capitalization	56	57
Punctuation	55	57
Usage	55	53
Language Total	54	55
Math Concepts	57	56
Math Problem Solving	57	58
Math Total	57	58
Core Total	54	55
Maps & Diagrams	61	57
Reference Materials	57	53
Sources of Information Total	58	55
Science	50	51

Appendix G contains the Grade 6 to Grade 7 group trends using grade equivalent scores. The expected grade equivalents for sixth and seventh grade are 6.5 and 7.5, respectively. Of the district's ten middle schools, the average student at seven (70%) achieved a level of growth that is greater than would normally be expected. The average student at three schools achieved at a rate that is less than would normally be expected. However, students at one of the three schools averaged a grade equivalent that is above the expected level of 7.5. Therefore, students at two schools did not experience achievement growth at the expected level, and achieved at a lower than expected level (less than 7.5 for Grade 7).

The PLAN Assessment

PLAN is an assessment tool developed by the American College Testing (ACT) Program. It measures basic academic development in English, mathematics, reading, and science reasoning. PLAN helps identify career interests and relates these to educational and training requirements. It measures knowledge of effective study skills and gives students the opportunity to indicate areas of concern in which they feel they need assistance. PLAN can also assist students in preparing for the ACT.

The PLAN was offered to Des Moines 10th grade students in the fall of 1997. Two high schools elected to administer the PLAN to all students during the school day, and three elected to offer it to their students on a walk-in basis on a Saturday.

The following tables show some of the information available with the PLAN assessment, along with district-level scores.

Table 3. PLAN Subtest Scores

Tests	National Percent At or Below (10th grade Students):		
	All Students	College-Bound	# Students
English	51	44	646
Usage/Mechanics	55	48	646
Rhetorical Skills	49	42	646
Mathematics	57	51	647
Pre-Algebra/Algebra	56	49	647
Geometry	64	61	647
Reading	55	49	644
Science Reasoning	59	53	643
Composite (Average)	56	48	642

Table 4. PLAN Study Skills Analysis

Skill Areas	National Percent At or Below (10th grade Students):	# Students
Managing Time & Environment	50	633
Reading Textbooks	43	631
Taking Class Notes	41	627
Using Resources	43	626
Preparing for Tests	41	619
Taking Tests	43	613
Total	36	633

Note: Scores of "0" were eliminated from the analysis.

Table 5. PLAN Student Needs Analysis

Area of Need	Amount of Help Needed (Percent Responding)			
	A Lot	Some	A Little/ None	# Students
Expressing my ideas in writing	8.2	51.1	40.7	585
Developing my public speaking skills	24.6	25.0	50.4	585
Increasing my reading speed	16.6	42.6	40.9	585
Increasing my understanding of what I read	14.2	38.6	47.2	583
Developing my math skills	21.4	34.4	44.3	585
Developing my study skills and study habits	26.8	25.3	48.0	586
Developing my test-taking skills	26.3	26.1	47.6	586
Understanding and using computers	15.7	43.5	40.8	586
Choosing a college or technical school to attend after high school	30.8	25.2	44.0	588
Selecting a career/job that is right for me	24.1	32.5	43.4	585

Note: Scores of "0" were eliminated from the analysis.

Conclusions

Based on the results of the these assessments, district students are achieving above most other students nationally. While there is room for improvement, students at most of our schools are scoring at a higher percentile rank on the ITBS tests when compared to the results of the ITBS given to similar groups in prior years. In addition, considering the number of special education students tested, whose results are also included with the ITBS scores of each building, most schools continue to do very well.

As we examine the group trends (Grade 3 to Grade 4; Grade 6 to Grade 7) for reading, language, and mathematics, it continues to be noteworthy that students are maintaining a level of achievement above the national norms in each of these areas. Furthermore, students continue to achieve at relatively higher levels in mathematics than in reading and language. This evidence lends support for the new mathematics curriculum adoption, with the anticipation that, over time, the new reading adoption will yield similar growth trends.

As school staffs review their own results, they will be able to identify areas of strength and areas in need of improvement. The results from these and other assessments, when viewed within the parameters of their diverse demographic contexts, should provide a foundation of information that is necessary to make informed, data-based decisions about the instruction and achievement of district students.

DEFINITIONS

Grade Equivalent - the grade level for which a score is the real or estimated average. For example, 4.2 represents the fourth year, second month. .

Iowa Tests of Basic Skills (ITBS) - a norm-referenced test published by the Iowa Testing Programs in Iowa City, Iowa. It is administered in Grades 3, 4, 6, and 7 in the Des Moines Public Schools. The test consists of the following parts:

> Grades 3, 4, 6, & 7: Vocabulary, reading spelling, capitalization, punctuation, usage, visual material, references, math concepts, math problems, and math computation.

Iowa Tests of Educational Development (ITED) - a norm-referenced test published by the Iowa Testing Programs in Iowa City, Iowa. It is administered in Grade 10 in the Des Moines Public Schools. The test consists of the following parts:

> Correctness of Expression, Quantitative Expression, Social Studies, Natural Sciences, Literary Materials, Vocabulary, and Sources of Information.

School Norms - Show where a school building or school system average for each grade group ranks among other averages of similar grade groups. It indicates specifically where the average score ranks among the averages of other schools (Iowa Testing Programs).

Student Norms - Show where the average student ranks among other students in the same grade. It should be interpreted as the rank of the average student among the students (Iowa Testing Programs).

Normal Curve Equivalent - an interval scale equivalent of the bell-shaped curve. The conversion process to arrive at an NCE distribution transforms the shape of the bell-shaped curve into a rectangular shape, such that the scores are distributed equally across each point in the distribution.

Norm-Referenced Test - a test that interprets individual performance by comparing a student's score to a previously established norm group, not to a performance criterion. The test is designed for one-half of the students to be above the 50th percentile and one-half below.

Percent - the proportion of a total. In testing, it is the number of questions answered correctly divided by the total number of items on the test.

Percentile - a point in the distribution below which a certain percent of the scores fall. For example, the 80th percentile is the point below which 80 percent of the scores lie. The shape of the distribution of percentiles is a bell-shaped curve.

Significance - an association between two variables or among a group of variables is said to be statistically significant when (in terms of quantitative measurement theory and practice) the association fulfills specific predetermined criteria. While statistical significance is largely a function of sample size, it must be weighed against a "meaningfulness" criterion. In the absence of statistical significance, results judged as having educational or practical meaning may play an important role in the evaluation of outcomes, and in some cases, may be more valid than statistical significance.

ITBS Historical Results
Grade 3 & Grade 4 Percentile Ranks
National Student Norms

SCHOOL	Grade 3 1996-97 Core Total	Grade 3 1997-98 Core Total	Grade 4 1996-97 Core Total	Grade 4 1997-98 Core Total
Adams	67	46	65	70
Brooks	36	23	42	41
Cattell	40	42	54	57
Douglas	60	58	60	63
Edmunds	41	30	31	43
Findley	49	43	49	64
Garton	41	38	43	46
Granger	40	43	55	45
Greenwood	74	74	81	76
Hanawalt	81	81	86	81
Hillis	78	67	66	67
Howe	49	49	60	53
Hubbell	67	72	63	76
Jackson	44	44	53	56
Jefferson	72	71	78	73
Longfellow	51	24*	30	28*
Lovejoy	51	56	56	53
Lucas	43	24	31	34
Madison	63	52	46	57
Mann	43	27	45	54
Mc Kee	40	54	42	47
Mc Kinley	23	47	31	31
Mitchell	47	33	58	46
Monroe	55	55	53	48
Moore	53	43	57	56
Moulton	26	40	46	30
Oak Park	46	38	51	41
Park Avenue	57	53	60	56
Perkins	36	46	45	46
Phillips	57	55	58	58
Pleasant Hill	67	67	58	61
Stowe	45	46	57	58
Studebaker	69	55	58	63
Wallace	45	29	34	46
Watrous	56	52	64	59
Willard	29	42	34	43
Windsor	66	64	69	67
Woodlawn	55	52	54	64
Wright	47	46	51	58
DISTRICT	52	50	55	56

* Scores based on spring administration

ITBS Percentile Rank Trends
Grade 3 (1997-98) To Grade 4 (1997-98) Group
National Student Norms

SCHOOL	Grade 3 1996-97 Core Total	Grade 4 1997-98 Core Total	TREND
Adams	67	70	3
Brooks	36	41	5
Cattell	40	57	17
Douglas	60	63	3
Edmunds	41	43	2
Findley	49	64	15
Garton	41	46	5
Granger	40	45	5
Greenwood	74	76	2
Hanawalt	81	81	0
Hillis	78	67	-11
Howe	49	53	4
Hubbell	67	76	9
Jackson	44	56	12
Jefferson	72	73	1
Longfellow	51	28*	-23
Lovejoy	51	53	2
Lucas	43	34	-9
Madison	63	57	-6
Mann	43	54	11
McKee	40	47	7
McKinley	23	31	8
Mitchell	47	46	-1
Monroe	55	48	-7
Moore	53	56	3
Moulton	26	30	4
Oak Park	46	41	-5
Park Avenue	57	56	-1
Perkins	36	46	10
Phillips	57	58	1
Pleasant Hill	67	61	-6
Stowe	45	58	13
Studebaker	69	63	-6
Wallace	45	46	1
Watrous	56	59	3
Willard	29	43	14
Windsor	66	67	1
Woodlawn	55	64	9
Wright	47	58	11
DISTRICT	52	56	4

* Scores based on spring administration

ITBS Group Trends
Grade 3 (1997-98) To Grade 4 (1997-98)
Grade Equivalent Scores

SCHOOL	GRADE 3 1996-97 Core Total	GRADE 4 1997-98 Core Total	TREND
Adams	4.1	5.5	1.4
Brooks	3.1	4.2	1.1
Cattell	3.2	4.7	1.5
Douglas	3.7	5.1	1.4
Edmunds	3.2	4.3	1.1
Findley	3.4	5.2	1.8
Garton	3.2	4.4	1.2
Granger	3.2	4.4	1.2
Greenwood	4.4	5.7	1.3
Hanawalt	4.6	6.1	1.5
Hillis	4.5	5.3	0.8
Howe	3.4	4.7	1.3
Hubbell	4.1	5.7	1.6
Jackson	3.3	4.7	1.4
Jefferson	4.2	5.6	1.4
Longfellow	3.5	3.9*	0.4
Lovejoy	3.5	4.6	1.1
Lucas	3.3	3.8	0.5
Madison	3.9	4.7	0.8
Mann	3.3	4.7	1.4
McKee	3.1	4.4	1.3
McKinley	2.7	3.7	1.0
Mitchell	3.4	4.4	1.0
Monroe	3.6	4.5	0.9
Moore	3.6	4.7	1.1
Moulton	2.8	3.7	0.9
Oak Park	3.4	4.2	0.8
Park Avenue	3.7	4.7	1.0
Perkins	3.1	4.4	1.3
Phillips	3.7	4.8	1.1
Pleasant Hill	4.1	5.0	0.9
Stowe	3.3	4.7	1.4
Studebaker	4.1	5.1	1.0
Wallace	3.3	4.4	1.1
Watrous	3.6	4.9	1.3
Willard	2.9	4.2	1.3
Windsor	4.0	5.3	1.3
Woodlawn	3.6	5.2	1.6
Wright	3.4	4.8	1.4
DISTRICT	3.6	4.7	1.1

* Scores based on spring administration

Appendix E

ITBS Historical Results
Grade 6 & Grade 7 Percentile Ranks
National Student Norms

SCHOOL	Grade 6 1996-97 Core Total	Grade 6 1997-98 Core Total	Grade 7 1996-97 Core Total	Grade 7 1997-98 Core Total
Brody	60	61	62	63
Callanan	67	61	71	66
Goodrell	45	54	53	47
Harding	37	42	48	40
Hiatt	42	41	38	42
Hoyt	46	44	50	49
McCombs	57	51	52	55
Meredith	62	61	62	62
Merrill	69	70	70	71
Weeks	52	49	53	48
DISTRICT	54	54	57	55

Appendix F

ITBS Percentile Rank Trends
Grade 6 (1996-97) To Grade 7 (1997-98) Group
National Student Norms

SCHOOL	Grade 6 1996-97 Core Total	Grade 7 1997-98 Core Total	TREND
Brody	60	63	3
Callanan	67	66	-1
Goodrell	45	47	2
Harding	37	40	3
Hiatt	42	42	0
Hoyt	46	49	3
McCombs	57	55	-2
Meredith	62	62	0
Merrill	69	71	2
Weeks	52	48	-4
DISTRICT	54	55	1

Appendix G

ITBS Group Trends
Grade 6 (1996-97) To Grade 7 (1997-98)
Grade Equivalent Scores

SCHOOL	GRADE 6 1996-97 Core Total	GRADE 7 1997-98 Core Total	TREND
Brody	7.3	8.7	1.4
Callanan	7.8	8.9	1.1
Goodrell	6.2	7.3	1.1
Harding	5.7	6.8	1.1
Hiatt	6.1	7.0	0.9
Hoyt	6.3	7.5	1.2
McCombs	7.1	8.0	0.9
Meredith	7.4	8.5	1.1
Merrill	7.9	9.5	1.6
Weeks	6.7	7.4	0.7
DISTRICT	6.9	8.0	1.1